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| 10/564,713      | 07/19/2006  | Suhung-Gwon Kim      | 2443.0030000        | 9873             |

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| EXAMINER |
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RAJ, RAJIV J

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3686

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04/14/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/564,713 | <b>Applicant(s)</b><br>KIM, SUHUNG-GWON |  |
|                              | <b>Examiner</b><br>RAJIV J. RAJ      | <b>Art Unit</b><br>3686                 |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on March 13, 2009 (RCE w/Amdt).
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on January 12, 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20090401</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 13, 2009 has been entered.

### ***Status of Claims***

2. This action is in reply to the amendment filed on 13 March 2009.
3. Claims 1-6 have been amended.
4. Claims 9-12 have been added.
5. Claims 1-12 are currently pending and have been examined.

### ***Priority***

6. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged.

***Claim Rejections - 35 USC § 112, Second Paragraph***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. In light of Applicant's interview discussing claims 5-8, the previous rejection is withdrawn.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross, Jr. et al.(US 5823948) (hereinafter Ross) in view of Pories et al. (US 2002/0082868 A1) (hereinafter Pories).

### **Claim 1**

**Ross as shown, discloses the following limitations:**

- *building, by a service-providing system, a database of standard terms, wherein the step of building the database of standard terms includes: selecting a plurality of terms as the standard terms; (see at least Ross Column:2 Lines:49-66)*
- *wherein the providing the standard terms through the web screen includes providing each standard term as one of a selection item and a check item or providing the standard terms as selection items applicable to writing of a statement sentence; (see at least Ross Column:9 Lines:20-35 Column:5 Lines:52-56)*

Ross does not disclose the following limitation, however Pories, as shown does:

- *extracting terms used in existing medical records of patients regarding cardinal symptoms of the patients; (see at least Pories [0074-0078])*
- *wherein the selected plurality of terms include the extracted terms regarding cardinal symptoms of patients; (see at least Pories [0074-0078], Fig:13 Items:66b & related text)*
- *storing the standard terms in the database, wherein the standard terms are stored in the database so as to be free from association with any particular medical record; (see at least Pories Fig:1A Items:10-20 & related text)*

- *providing, by the service-providing system, one or more of the standard terms stored in the database through a web screen; (see at least Pories Fig:1A, 1B, 9-18 Items:10-20, 24, 60a-80 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross. One of ordinary skill in the art would have added these features to Ross with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

## **Claim 2**

The combination of Ross/Pories disclose all of the limitations of claim 1. Ross further discloses the following limitations:

- *mapping, by the service-providing system, the standard terms in the database to standard codes; (see at least Ross Column:12 Lines:35-47)*

## **Claim 3**

The combination of Ross/Pories disclose all of the limitations of claim 1. Ross further discloses the following limitations:

- *wherein the selected plurality of terms include at least one of diagnosis names, operation names, terms used upon writing of the status of patients by nurses, terms used upon writing of the status of the patients by doctors, prescription terms used by doctors, and medicine terms; (see at least Ross Column:2 Lines:49-66 Fig:2 Items:101-111 & related text)*

- *at least one term of the selected plurality of terms matches one of . . . regarding cardinal symptoms for patients, the diagnosis names, the operation names, the prescription terms used by the doctors, and the medicine terms, wherein the at least one term of the selected plurality of terms is a standard term provided . . . as one of a selection item and a check item; (see at least Ross Column:5 Lines:2-10)*

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

- *extracting terms; (see at least Pories [0074-0078])*
- *through the web screen; (see at least Pories Fig:1A, 1B, 9-18 Items:10-20, 24, 60a-80 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

#### **Claim 4**

The combination of Ross/Pories disclose all of the limitations of claim 1. Ross further discloses the following limitations:

- *wherein the selected plurality of terms include terms used upon writing of the status of the patients by nurses or terms used upon writing of the status of the patients by doctors, wherein such terms of the selected plurality of terms are standard terms*

*provided . . . as selection items applicable to writing of the statement sentence; (see at least Ross Column:9 Lines:20-41)*

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

- *through the web screen; (see at least Pories Fig:1A, 1B, 9-18 Items:10-20, 24, 60a-80 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care.

(see at least Pories [0012-0017])

### **Claim 5**

The combination of Ross/Pories disclose all of the limitations of claim 1. Ross further discloses the following limitations:

- *wherein the selected plurality of terms include at least one of diagnosis names, operation names, terms used upon writing of the status of patients by nurses, terms used upon writing of the status of the patients by doctors, prescription terms used by doctors, and medicine terms; (see at least Ross Column:2 Lines:49-66 Fig:2 Items:101-111 & related text)*
- *wherein the modify function permits a manager to modify a standard term in the database. the delete function permits the manager to delete a standard term from the database, the add function permits the manager to add a standard term to the*



*database, and the standard statement sentence write function permits the manager to combine standard terms into a standard statement sentence that may be later used to write a medical record; (see at least Ross Fig:3 Items:107-113 & related text)*

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

- *providing, by the service-providing system, through the web screen, at least one of a modify function, a delete function and an add function for management of the standard terms in the database, and a standard statement sentence write function; (see at least Pories Fig:1A, 1B, 9-18 Items:10-20, 24, 25d, 60a-80 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

### **Claim 6**

The combination of Ross/Pories disclose all of the limitations of claim 2. Ross further discloses the following limitations:

- *wherein the selected plurality of terms include at least one of diagnosis names, operation names, terms used upon writing of the status of patients by nurses, terms used upon writing of the status of the patients by doctors, prescription terms used by doctors, and medicine terms; (see at least Ross Column:2 Lines:49-66 Fig:2 Items:101-111 & related text)*

- *wherein the modify function permits a manager to modify a standard term in the database, the delete function permits the manager to delete a standard term from the database, the add function permits the manager to add a standard term to the database, and the standard statement sentence write function permits the manager to combine standard terms into a standard statement sentence that may be later used to write a medical record; (see at least Ross Fig:3 Items:107-113 & related text)*

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

- *providing, by the service-providing system, through the web screen, at least one of a modify function, a delete function and an add function for management of the standard terms in the database, and a standard statement sentence write function; (see at least Pories Fig:1A, 1B, 9-18 Items:10-20, 24, 25d, 60a-80 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care.

(see at least Pories [0012-0017])

### **Claim 7**

The combination of Ross/Pories disclose all of the limitations of claim 3. Ross further discloses the following limitations:

- *providing, by the service-providing system, through the web screen, at least one of a modify function, a delete function and an add function for management of the*

*standard terms in the database, and a standard statement sentence write function. (see at least Ross Column:13 Lines:48-58)*

- *wherein the modify function permits a manager to modify a standard term in the database. the delete function permits the manager to delete a standard term from the database, the add function permits the manager to add a standard term to the database, and the standard statement sentence write function permits the manager to combine standard terms into a standard statement sentence that may be later used to write a medical record; (see at least Ross Fig:3 Items:107-113 & related text)*

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

- *providing, by the service-providing system, through the web screen, at least one of a modify function, a delete function and an add function for management of the standard terms in the database, and a standard statement sentence write function; (see at least Pories Fig:1A, 1B, 9-18 Items:10-20, 24, 25d, 60a-80 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

### **Claim 8**

The combination of Ross/Pories disclose all of the limitations of claim 4. Ross further discloses the following limitations:

- *wherein the modify function permits a manager to modify a standard term in the database, the delete function permits the manager to delete a standard term from the database, the add function permits the manager to add a standard term to the database, and the standard statement sentence write function permits the manager to combine standard terms into a standard statement sentence that may be later used to write a medical record; (see at least Ross Fig:3 Items:107-113 & related text)*

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

- *providing, by the service-providing system, through the web screen, at least one of a modify function, a delete function and an add function for management of the standard terms in the database, and a standard statement sentence write function; (see at least Pories Fig:1A, 1B, 9-18 Items:10-20, 24, 25d, 60a-80 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care.

(see at least Pories [0012-0017])

### **Claim 9**

The combination of Ross/Pories disclose all of the limitations of claim 1. Pories further discloses the following limitations:

- *wherein the web screen is executed on at least one of a doctor terminal, a nurse terminal, an examination room staff terminal, and a general medical affairs*

*terminal in communication with the service providing system over a network; (see at least Pories Fig:1A, 1B, 9-18 Items:10-20, 24, 25d, 60a-80 & related text)*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

#### **Claim 10**

The combination of Ross/Pories disclose all of the limitations of claim 1. Ross further discloses the following limitations:

- *normalizing the extracted chief complaints of step (a) by separating the extracted chief complaints of step; (see at least Ross Fig:3 Items:105-114 & related text)*
- *(c) aligning the main concepts on a spelling and concept basis so as to extract a set of representative chief complaints, the representative chief complaints being the extracted terms; (see at least Ross Fig:3 Items:105-114 & related text)*

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

- *a) into main concepts, concept qualifiers, and concept modifiers; (see at least Pories Fig:1 A-B Items:14-25e & related text)*
- *extracting chief complaints from a computerized discharge summary of medical records; (see at least Pories [0074-0078])*

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

**Claim 11**

The combination of Ross/Pories disclose all of the limitations of claim 10. Pories further discloses the following limitations:

- *mapping by the service-providing system;* (see at least Ross Column:12 Lines:35-47)

Ross/Pories does not disclose the following limitation, however Pories, as shown does:

- *the representative chief complaints to standard codes;* (see at least Pories Fig:1 A-B Items:14-25e & related text)

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

**Claim 12**

The combination of Ross/Pories disclose all of the limitations of claim 11. Pories further discloses the following limitations:

- *imparting a concept identifier of a standard code to each representative chief complaint;* (see at least Pories Fig:1 A-B Items:14-25e & related text)
- *classifying each mapped chief complaint according to whether a concept of the representative chief complaint exactly matches, is broader than, is narrower than, partially overlaps, or fails to match the imparted concept identifier of the standard code.;* (see at least Pories Fig:1 A-B, 7 Items:14-25e, 100-190 & related text)

It would have been obvious to one of ordinary skill in the art to add the features of Pories into Ross/Pories. One of ordinary skill in the art would have added these features to Ross/Pories with the motivation to provide an improved invention accurately and effectively extracting storing and utilizing medical data for improved health care. (see at least Pories [0012-0017])

### **Response to Arguments**

11. Applicant's arguments received on 13 March 2009 have been fully considered but they are not persuasive. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

12. Further, Examiner points out that applicant fails to claim a step that connects the "extracting terms" with the "selecting" or "storing" steps, which illustrate how it's determined which terms are to be extracted and which terms are stored as "standard terms".

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Rajiv J. Raj** whose telephone number is **(571) 270-3930**. The Examiner can normally be reached on Monday-Friday, 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **Jerry O'Connor** can be reached at **571.272.6787**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).



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Date: 03/31/09

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